Pharmacology and Therapeutics

By Felix Lengfeld, Ph. D.

An examination of the reports of the "Council on Pharmacy and Chemistry" for the last year shows gratifying progress. Almost every reputable pharmaceutical manufacturer now submits new preparations to the Council for approval, though but a short time ago some of these tried to ignore the Council, claiming that its rulings were academic instead of practical, and, therefore, unjust. Now practically everybody acknowledges the excellence and impartiality of the Council's work, and is willing to submit to its verdict. This is leading to a valuable standardization of non-official remedies. The reports also show that the faker who deliberately tries to impose upon the medical profession has learned that he cannot put one over on the Council, for each year fewer frauds are submitted to it for approval, and there are fewer rejections. This does not mean that the Council does not reject any preparations offered it, but that the rejection is usually made because the manufacturer, perhaps in all sincerity, makes unjustifiable claims, because the preparation is an irrational mixture, or because the name is misleading. Physicians sometimes state that they have obtained good results from preparations which have been rejected by the Council. If the physician will examine carefully the Council's report, he will find in most cases that he does not differ with it. A good cough mixture may be rejected because it claims to cure influenza, and yet, the physician may find it valuable in certain types of cough. Again, physicians sometimes state that they have used preparations approved by the Council without result. It must be borne in mind that the Council does not guarantee the efficacy of all preparations admitted into N. N. R., but merely declares that there is sufficient evidence, clinical and otherwise, to show that their claims are not unduly exaggerated, and that they may be useful in some cases. It would certainly add to the dignity of both medicine and pharmacy if every physician would ask every detail man whether or not his preparation has been admitted to N. N. R., and if it has not been, find out the reason for its rejection. If the preparation has been admitted, the physician is safe in giving it a trial. If it has not been admitted, he should certainly look into the matter very carefully from all angles before using it.

"Introducing a New Drug"—To what extent are the claims made for a new drug tinctured by commercial considerations, even though put out as the result of investigations carried out by the scientific staff of a firm of standing? And even if the drug is the result of studies carried out by investigators who have no commercial connection there is the question: To what degree has the investigator's enthusiasm tinctured his judgment? An increasing number of physicians abstain from the use of a new drug, until its acceptance for New and Non-official Remedies gives assurance that it is worthy of trial. What seems to be an almost ideal method of introducing a new drug has been followed in the case of "Flumerin," the name given to the disodium salt of hydroxymercuri-fluorescein. This drug has been elaborated by White, Hill, Moore and Young of Johns Hopkins. These men have declared the composition of the drug, have reported animal experiments of promise, and have demonstrated its efficiency in clinical trials. The investigators announce, however, that the drug will not be commercially available unless independent clinical study confirms their favorable finding that the drug is of value in the treatment of syphilis. That syphilologists may feel warranted to make such trials, White and his collaborators requested the Council on Pharmacy and Chemistry to examine the evidence for the preparation. This, the Council did, and it has published a preliminary report, stating that the drug is suitable for clinical trial in selected cases. If flumerin becomes an addition to our materia medica, it will be as the result of the orderly procedure: (1) Demonstration of its chemical identity and uniformity; (2) animal experiments which give promise of therapeutic value; (3) clinical trials under the auspices of the discoverers, and (4) confirmation of its therapeutic worth by independent clinical investigations." (Journal A. M. A., September 30, 1922, p. 1149.)

The above, quoted from the report of the Council, is another example of the good work being done, and contrasts favorably with past practice in these cases. For instance, only a few years ago, T. Braisford Robertson, a thoroughly reliable and conscientious investigator, isolated from the anterior lobe of the pituitary glands of cattle a substance which he regarded as the growth-controlling principle. He called this tethelin, and it was put on the market by a pharmaceutical house as capable of accelerating the healing of wounds and promoting recovery after inanition. Tethelin, however, was not largely used by the medical profession, and now experiments made at the University College in London failed to show any influence by the oral administration of the anterior lobe substance on the growth of animals. The Council which held up the application for the admission of tethelin into N. N. R. for further evidence has now formally rejected the application.

Insulin—The patenting of insulin by the discoverers seems to have been a wise and necessary step in the right direction. But for this patent which has been turned over to the University of Toronto and will not be used for gain, there would have been a scramble among manufacturers to get insulin on the market as soon as possible, and there would probably have been as many fatalities as cures. Insulin seems a dangerous drug unless properly used and properly controlled. The University of Toronto has licensed one American pharmaceutical house, with the understanding that the product is to be given out so as to minimize the danger. With the permission of the University of Toronto, a number of clinics and institutions all over the country, with proper facilities, were given small quantities of insulin for experimental purposes. As physicians connected with these institutions become acquainted with the technique, they are allowed to purchase insulin for use in their own private practice, the drug being sent them directly from Indianapolis. This may seem a little unfair to other practitioners, but it apparently seems to those in control of insulin the best way to prevent its indiscriminate use and abuse. It is only the beginning, and in all probability the general practitioner will be able to secure all the insulin he needs within a short time. Insulin must be given hypodermatically at frequent intervals with strict control, and it looks as though it will be an expensive luxury, unless some way can be found by which the cost of the treatment can be radically reduced. Those controlling insulin are certainly to be congratulated on the dignified way in which they have gone about introducing it, placing the good of the community far above the hope of gain. Notwithstanding the patent, several manufacturers are already advertising substitutes for insulin given by mouth. These manufacturers play no favorites, and their products are apparently sold to anybody who has the price.

A few months ago each day brought out new vitamin preparations, and everybody was taking vitamins, in tablets, pills, or bonbons. The craze was shortlived, and now vitamin therapy seems as dead as the dodo, although physicians will undoubtedly find occasions in which the medicinal administration of vitamins is necessary.

(Reported by W. A. Puckner, secretary)

During February, the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion in New and Non-official Remedies:

Schick test and Schick test control (Eli Lilly & Co.). Diphtheria toxin-antitoxin (Eli Lilly & Co.). Diphtheria toxin and control for the Schick test (P. D. & Co.). Neo-Silvol, mercurosal, tincture No. 111, digitalis (P. D. & Co.).

NEW AND NON-OFFICIAL REMEDIES

Bacillus Acidophilus Milk (Lederle)—Whole milk cultured with bacillus acidophilus. It contains not less than fifty million of viable organisms (B. acidophilus) per cc. During recent years reports have been published which indicate that the growth in the intestinal canal of the normally present bacillus acidophilus may be increased so as to make it the predominating organism, by the administration of milk inocculated with B. acidophilus, by the administration of viable cultures of B. acidophilus in conjunction with lactose (sugar of milk) or by administration of lactose alone. The therapeutic value of cultures of B. acidophilus is still in the experimental stage. For a discussion of the actions and uses of lactic acid ferment preparations, see New and Non-official Remedies 1922, p. 156. Bacillus acidophilus milk (Lederle) must be kept on ice and should be used within one week of the expiration date, which appears on each package. Lederle antitoxin Laboratories, New York. (Journal A. M. A., February 3, 1922, p. 323.)

Theocin Sodium Acetate—A brand of theophylline sodio-acetate (N. N. R.). (See New and Non-official Remedies 1922, p. 357.) Winthrop Chemical Co., New York. (Journal A. M. A., February 10, 1923, p. 401.)

Diphtheria Toxin and Control for Schick Test (P. D. & Co.)—Diphtheria immunity test (New and Non-official Remedies 1922, p. 320), marketed in packages containing one vial of 0.1 cc. of undiluted, standardized diphtheria toxin, one vial of 5 cc. of sterile physiologic solution of sodium chloride, one vial of 5 cc. of diluted control of Schick test, and one sterile syringe point. Each package contains material sufficient for fifty doses. Parke, Davis & Co., Detroit, Mich. (Journal A. M. A., February 17, 1923, p. 475.)

Diphtheria Toxin-Antitoxin Mixture (Lilly)—A diphtheria toxin-antitoxin mixture. (See New and Non-official Remedies 1922, p. 282), each cc. constituting a single human dose and containing 3 L+ doses prepared in accordance with the requirements of the U. S. Public Health Service. Marketed in packages of three vials sufficient for one treatment. Eli Lilly & Co., Indianapolis, Ind.

Schick Test (Lilly)—A diphtheria immunity test (see New and Non-official Remedies 1922, p. 320) marketed in packages containing one vial of diphtheria toxin sufficient for ten tests, and a vial of sterile physiological solution of sodium chloride and in packages of ten vials containing toxin sufficient for one hundred tests accompanied by ten vials of sterile physiological solution of sodium chloride. As a control, the Schick test control, representing diphtheria toxin of the same lot treated to destroy the specific exotoxins is supplied. Eli Lilly & Co., Indianapolis, Ind. (Journal A. M. A., February 25, 1922, p. 553.)

PROPAGANDA FOR REFORM

Ginseng—Ginseng has found no place in modern therapy. However, it has been reported that infusions of the extract of ginseng root are diuretic. But the most recent study has shown that the drug does not affect the nitrogen metabolism. Even the quack would find it difficult to discover a tenable potency on the basis of which the use of ginseng could be "boosted." (Journal A. M. A., February 3, 1923, p. 328.)

Mercupressen—From the advertising issued by the Barsa Chemical Co., Inc., 28 West Twenty-third street, New York, for mercupressen, this product is essentially the same as that which the Spirocide Corporation, 28 West Twenty-third street, New York, marketed as "Spirocide." Spirocide was claimed to be composed of metallic mercury, copper sulphate, cypress cones, henna, nutgalls, and dried pomegranates. The product was sold in the form of tablets. For use the tablets were ignited and the fumes inhaled by the patient. The Council on Pharmacy and Chemistry held that the claims for spirocide were unproved and unwarranted, and that the routine use of an inexact method for the administration of mercury is detrimental to sound therapy. The Council's rejection of spirocide was subsequently fully sustained by the investigation of the inhalation treatment of syphilis carried out by Cole, Gericke, and Sollmann. (Journal A. M. A., February 3, 1923, p. 344.)

More Misbranded Nostrums—The following products have been the subject of prosecution by the Federal authorities charged with the enforcement of the Food and Drugs Act: Healing Springs Water (Virginia Hot Spring Co.), a moderately mineralized water, containing bicarbonates of calcium and magnesium, and magnesium sulphate (epsom salt); Brick's Sarsaparilla (Palestine Drug Co.), containing small amounts of sodium salicylate, potassium iodid, plant drug extractives, including sarsaparilla and a laxative drug, sugar, alcohol, and water; Yerk's Wine Extract of Cod Liver Oil (Yerk's Chemical Co.), consisting essentially of compounds of sodium, potassium, calcium, iron, quinin, strychnin, and phosphorus, extracts of plant drugs, possible traces of cod-liver oil, malt extract, sugar, alcohol, and benzaldehyde as a flavoring; Anemia Tablets (Carlos M. Rivoll), containing 95 per cent of milk sugar and small quantities of cinchona alkaloids, charcoal, sulphur, gum and compounds of arsenic, phosphorus, iron, and sodium. (Journal A. M. A., February 3, 1923, p. 343.)

Bayer 205—This is said to be a specific trypanosomid. It is said to have no effect on organisms other than the trypanosomes, even those that are nearly related, such as the spirochetes. Most of the work carried out in this country has been carried out with small laboratory animals, but the successful treatment of two human cases of trypanosomiasis is reported. The composition of Bayer 205 is secret, though a hint as to its chemical composition has been discovered, which suggests that it is a dye of the naphthalene series. It is hoped that in the near future the exact composition of Bayer 205 will be declared so that scientists will feel justified to carry out controlled experiments with the drug. For the present the preparation is in the experimental stage. (Journal A. M. A., February 10, 1923, p. 406.)

A Patented Consumption Cure—The U. S. Patent Office has issued patents for many preparations to be used in medicine, for which there has not been the slightest scientific justification. The most recent and most flagrant lack of intelligent patent law adminisration is to be found in a patent issued to Sergluson, and exploited by the Savrite Medical Manufacturing Co., Los Angeles, Calif., for an alleged cure for tuberculosis.

This is the patented cure: Pure olive oil, 1 gallon; squill root, 3 pounds; bitter almonds, 1¼ pounds; nettle (the plant, except the root), 1½ pounds; red poppy flower petals, 1 pound. These various ingredients are to be mixed, put in a closed container, gradually warmed, and left standing for about seventy-two hours, when the mixture is squeezed, mixed, and filtered. The filtrate comprises the "cure." (Journal A. M. A., February 10, 1923, p. 420.)

The Patent Office a Federal Rip Van Winkle—No branch of our government is of greater impor-

tance to the progress of the country than the Patent Office, provided it is intelligently administered. When the Patent Office is used, however, for an extension of the nostrum business founded on the abuse of patent and trademark laws, it becomes a menace to public health. In 1918, a report of the Committee on Patent Law Revision of the Council on Pharmacy and Chemistry recapitulated the effort made for years by the American Medical Association to bring about patent law reform, and detailed some of the cruder forms of Patent Office insufficiency in the granting of patents for medicaments. The issuance recently for a patent on a preposterous mixture of squill root, nettle, and red poppy flowers in olive oil as a remedy for tuberculosis is a further illustration of Patent Office incompetency.

Both common sense and consideration of the health of the public suggests that the Patent Office should consult the scientific departments of the United States Government conversant with medicine and therapeutics in the issuance of patents on medicinal preparations. (Journal A. M. A., February 10, 1923, p. 405.)

Strychnin and Disturbances of the Vision—The use of strychnin in the treatment of certain visual disturbances appears to be extensive. Its use in ophthalmology was introduced in 1830. In textbooks the claims for the usefulness of the drug in these conditions run from mere assertions regarding the usefulness of the drug in certain eye conditions to statements that it actually increases the acuity and field of vision within an hour after injection of therapeutic doses. Occasionally, there is a statement to the effect that the good results from strychnin are due to psychic influences. And now, ninety-two years after its proposed use, experiments have been made to indicate that the latter opinion is probably correct, and that strychnin is without action on vision. (Journal A. M. A., February 10, 1923, p. 406.)

Brown's New Consumption Remedy—The Postoffice Department has issued a fraud order against B. H. Brown, M. D., of Jacksonville and St. Augustine, Fla., and Brown's Magnolia Remedy Co. For some time Dr. Brown, a negro, has been advertising Dr. Brown's New Consumption Remedy, especially to members of his own race who are afflicted with tuberculosis. In 1917, the Federal authorities prosecuted Brown under the Food and Drugs Act, holding that the claims for the preparation were false and fraudulent. Though convicted, he continued making his claims in newspaper advertisements, and in circulars that answered these advertisements. While the Department of Agriculture is helpless to prevent this form of fraud under the provisions of the Food and Drugs Act, the postoffice authorities are able to reach this form of fraud. The department filed charges against Brown, and after hearing the defense issued a fraud order against Magnolia Remedy Co. and E. H. Brown. (Journal A. M. A., February 17, 1923, p. 495.)

Allen's Goiter Treatment—At Sheffield, Iowa, the Allen Remedy Co. conducts a mail-order business in "Dr. C. J. Allen's Goiter Treatment." The A. M. A. Chemical Laboratory analyzed the Allen nostrum and found it to consist essentially of ferrous iodide and hydrogen iodide (hydriodic acid) in a colored and flavored syrup. The serious side of the Allen Goiter Remedy Co. business is the indiscriminate sale of the nostrum to those who may be, and are likely to be, suffering from exophthalmic goiter. It is well known that the use of iodin is likely to aggravate this disease, and hence it is not surprising that physicians are beginning to report serious results from the use of the Allen preparation. (Journal A. M. A., February 24, 1923, p. 572.)

JOINT MEETING OF THE AMERICAN AND PACIFIC COAST ANESTHETISTS WITH THE SECTION ON ANESTHESIOLOGY OF THE CALIFORNIA STATE MEDICAL SOCIETY

The joint meeting of the American and Pacific Coast Anesthetists with the Section on Anesthesiology of the California State Medical Society, at the Hotel Stewart, San Francisco, June 22-26, will enable all those interested in better anesthesia to advance the specialty of their choice.

Aside from the usual scientific sessions devoted to exceptional papers on research and clinical phases of anesthesia, clinics will be held on Saturday and Tuesday morning of the meeting, and if possible some laboratory demonstrations will also be scheduled.

Membership in the several associations is open to all licensed and qualified members of the medical and dental professions, as well as research workers holding doctorates of similar standing, who are interested in advancing the specialty of anesthesia. If you wish to present a paper during the meeting, kindly notify one of the secretaries at once, giving title and a brief abstract so that it may be properly placed on the program. Membership applications will be sent on request.

The following details of the scientific program may be announced at this time:

The Section on Anesthesiology of the California State Medical Society will meet on Friday afternoon, June 22, and some of the papers to be presented will be:

The Anesthesia Situation in California (chairman's address). Edgar I. Leavitt, San Francisco.

The Effects of Posture on Relaxation Under Anesthesia. Caroline B. Palmer, San Francisco.

Reversing Anesthetic By-Effects Through Selective Medication. Lorulli A. Rethwilm, San Francisco.

Current Researches in Anesthesia. F. H. McMechan, Avon Lake, Ohio.

Pre- and Post-operative Care of Patients from the Anesthetist's Viewpoint. R. F. Hastreiter, Los Angeles.

On Friday evening there will be a special session on anesthesia in oral surgery and dentistry, to which the local specialists and dentists will be invited. The following papers will be presented:

Anesthesia for Oral Surgery with Special Reference to the Dangers and Advantages of the Beck-Mueller Apparatus. Walter R. Crane, Los Angeles.

General Anesthesia in Nose and Throat Surgery Hypodermically Administered. Isaac H. Jones, Los Angeles.

Pure Nitrous Oxide-Oxygen for Oral Surgery in the Upright Posture. E. I. McKesson, Toledo, Ohio.

Handling the Problem of Difficult Cases Under Nitrous Oxide-Oxygen Anesthesia for Oral Surgery and Dentistry. Leo Schuchard, San Francisco.

Selective Anesthesia for Plastic Surgery of the Mouth and Jaw. Edmund H. Kelly, Los Angeles.

Anesthesia clinics will be held at Lane Hospital, Stanford University on Saturday morning, June 23, under the chairmanship of Caroline B. Palmer.

It is expected that laboratory demonstrations of pertinent interest can be arranged for Saturday afternoon at the University of California Medical College.

A get-together social evening will be featured for the anesthetists and their ladies in attendance, at the Hotel Stewart on Saturday evening.

There will be a General Session on Monday morning, June 25, with a presentation of the following papers:

Address of Welcome. Saxton T. Pope, San Francisco.

Response. F. H. McMechan, Avon Lake, Ohio.

President's Address. Eleanor Seymour, Los Angeles.